

# NEMSIS at the National Level

September 13th, 2007



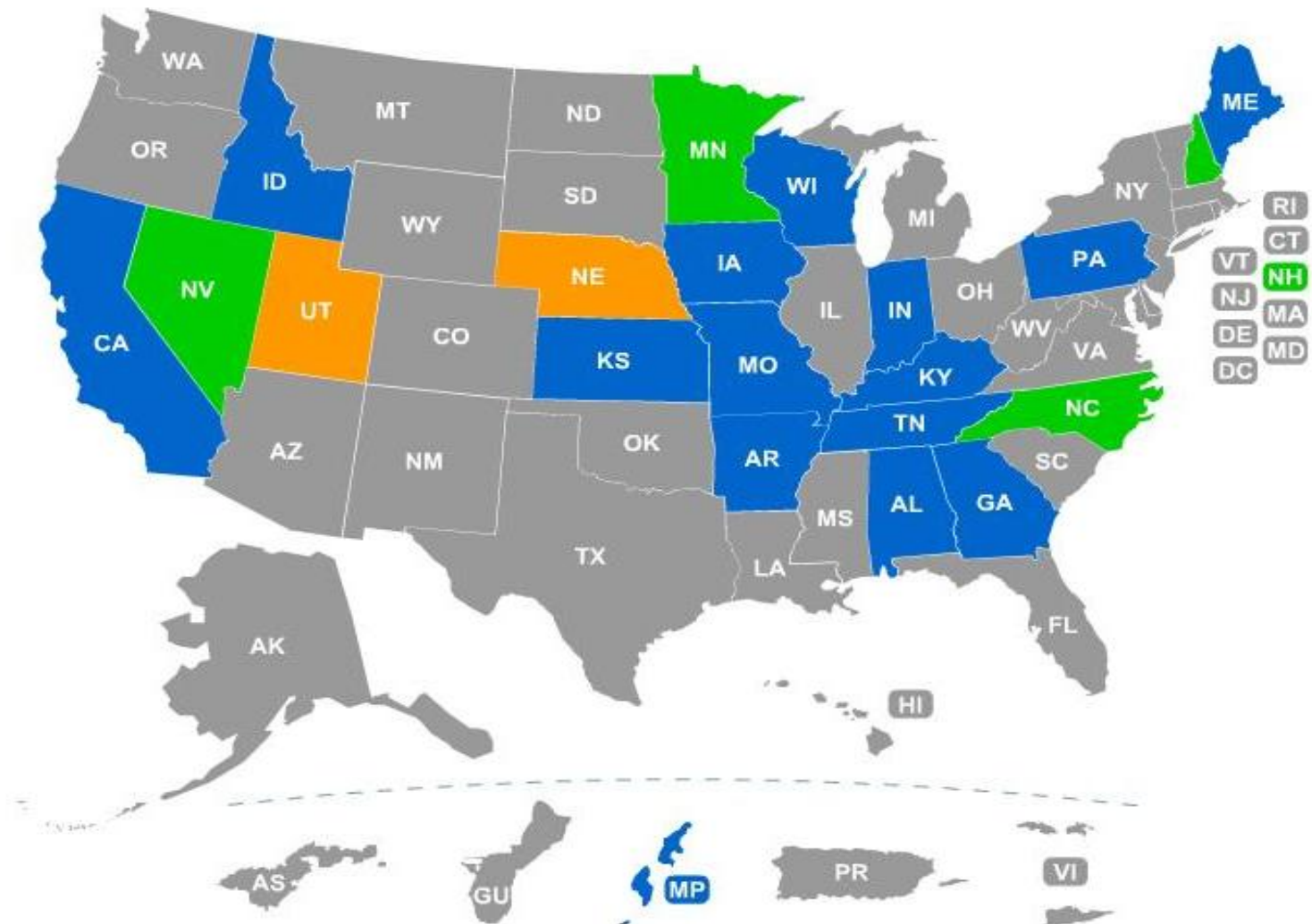
# July, 2003

- “There is no nationwide standard for measuring emergency response times. A USA TODAY study of the 50 biggest U.S. cities found that most cities report only the slice of the response that looks most favorable: the time it takes for the emergency crew to drive to the scene.”
- As USA TODAY's report notes, communities that boosted their survival rates focused on simple reforms. Among them:  
**Better measurement.** Houston raised its success rate for saving cardiac arrest victims from near zero to 21% by measuring response times and hiring a physician to oversee a redeployment of resources.

# NEMSIS Topics

- State & Territory Progress Report.
- Technical Assistance to States.
- National Reporting Plan (samples).
- Revision to NHTSA 3.0.

# State & Territory Progress Report



# Contributions to the National EMS Database

- New Hampshire: 56,892
- Minnesota: 104,715
- North Carolina: 762,156
- Nevada: 1,934
- Utah – beginning in September
- Nebraska – beginning in September
- Wisconsin – beginning in January

***Currently Contains 925,697 Records!***

# Other Short List States

- Idaho: submit late September
- New Jersey: submit November
- Tennessee: submit in the fall
- North Dakota: asking vendor to submit
- Delaware: ready to submit late summer
- Maine: waiting for law to apply

Other **ImageTrend** states: GA, NE, NM, WA, WI, MO

Other **MedMedia** states: HI, ID, IA, ND, MH

# NEMSiS TAC assistance

- Direct Technical Assistance
  - Conducted site visits in 17 states
  - 48 states received direct assistance
  - Participation in state meetings
  - Creation of state-specific tools (i.e., Validator and Mapper software tools)
  - Collaboration with NEDARC

# NEMSiS TAC assistance

- Indirect Technical Assistance
  - NEMSiS website accessed over 3,000 times per month
    - Software Contact List
    - Wolfberg Letter (HIPAA)
    - National Reports
  - List Server Messages / Google User Group
  - Software Compliance Testing
    - Gold Certification (15 vendors)
    - Silver Certification (21 vendors)



# Website activity in Utah

## Top Downloads (August, 2007)

- EMS Data Validator Quick Reference V4 (doc) – 471
- NEMSiS Data Dictionary v.2.2.1 (pdf) – 288
- NEMSiS Data Dictionary v.2.2.1 (doc) – 220
- NEMSiS Data Elements and Values v.2.2.1 (xls) – 180
- NEMSiS Data Elements Definitions v.2.2.1 (xls) – 164
- EMS Law Tracker 000 (doc) – 153
- Final NHTSA V2.2.1 Compliance Policy 4-28-2006 (pdf) – 149
- NEMSiS Compliance Task List 001 (pdf) – 118
- NEMSiS Data Elements Definitions NE v.2.2.1 (xls) – 116
- NEMSiS XSDs v2.2.1 (zip) – 100

# National Reporting Plan

- **Develop “real time” state and national reports**
  - **Report Domain**
    - Data Quality reports
    - Demographic reports
    - Elapsed Time reports
    - Medical and Trauma reports
    - Disposition reports
    - Agency reports
    - Cardiac Arrest reports
    - Financial Aspects reports
    - Delay reports
    - Ad-hoc reports
- **Develop a “real-time” searchable data query system for emphasis areas**
  - Cardiac Arrest
  - Trauma
- **Develop “real-time” data cubes to facilitate multi-dimensional data models with a rapid execution time.**

# National Report Sample

## National Elapsed Patient Care Times By Agency Type\*

A National EMS Database Report

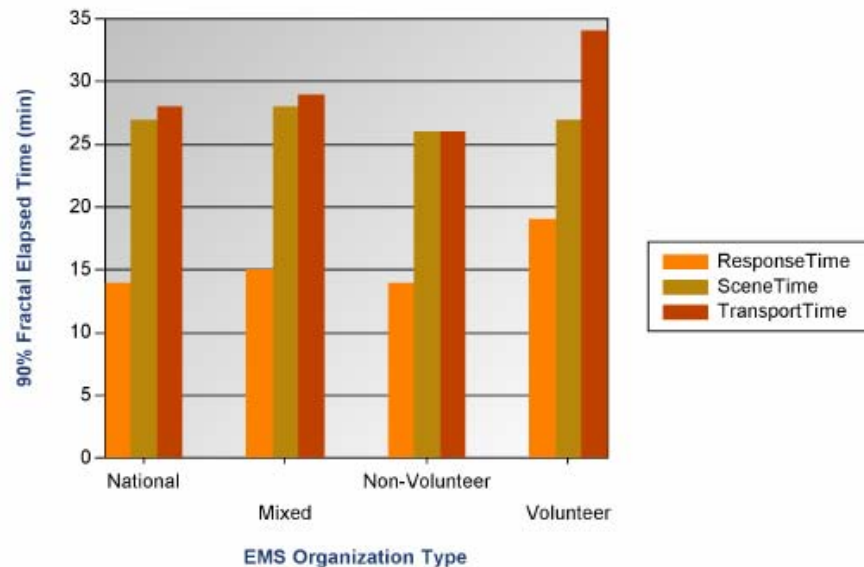
**States Submitting Data:** Minnesota, New Hampshire and North Carolina †

**Date Range:** 01/01/2006 - 12/31/2006

**Record Selection:** 911 Response Time (Unit Notified by Dispatch Time until Unit Arrives at Scene Time) using Lights and Sirens

**Records Used:** 300,680 ‡

90% Fractal Elapsed Time By Type of EMS Organization



# National Report Sample

The following table provides added statistical descriptions of the information used to create the chart labeled: National Elapsed EMS Patient Care Times By Agency Type.

EMS Organization	Total Records	Patient Care Times	Average	Median	90% Fractal
<b>National</b>					
	300680	ResponseTime	00:09:59	00:07:00	00:14:00
	261390	SceneTime	00:17:10	00:15:00	00:27:00
	234776	TransportTime	00:15:11	00:12:00	00:28:00
<b>Mixed</b>					
	38121	ResponseTime	00:08:33	00:06:00	00:15:00
	36452	SceneTime	00:17:56	00:16:00	00:28:00
	31036	TransportTime	00:15:20	00:12:00	00:29:00
<b>Non-Volunteer</b>					
	236464	ResponseTime	00:10:03	00:07:00	00:14:00
	199611	SceneTime	00:17:12	00:15:00	00:26:00
	181178	TransportTime	00:14:39	00:12:00	00:26:00
<b>Volunteer</b>					
	26095	ResponseTime	00:11:30	00:09:00	00:19:00
	25327	SceneTime	00:15:55	00:13:00	00:27:00
	22562	TransportTime	00:19:14	00:16:00	00:34:00

## Footnotes:

\* Refer to the linked document for detailed specifications associated with this chart:

[National Elapsed Patient Care Times report specifications](#)

† States vary in the inclusion criteria used to populate EMS Data Sets. Please see the NEMSIS website for a description of differences in state EMS database composition.

<http://www.nemsis.org/nemsisReporting/nationalEMSDatabaseDescription.html>

‡ For the purposes of charting, all elapsed patient care times that were negative, zero, or greater than 24 hours were removed. Overall, the following records were excluded from the analysis:

6% of the Response Time records,  
20% of the Scene Time records and  
28% of the Transport Time records

# National Report Sample

## National Elapsed Patient Care Times by Agency Type National EMS Database Report Specification

### Purpose

This report details national information regarding the EMS elapsed time to patient care for several common response intervals by type of EMS organization.

### Definitions

1. **Type of EMS Organization:** Common EMS organizational types are divided into 3 groups based on reimbursement for EMS treatment rendered. The terms used are general in nature and are for National EMS Database Reports only. Terms do not reflect state or agency terminology. For more descriptive definitions, contact individual participating states or EMS agencies. The groups are divided as follows:

**Volunteer:** A volunteer agency employs properly trained individuals and operates an emergency response vehicle to or from the scene of an emergency and/or renders emergency medical treatment on a volunteer basis.

**Non-Volunteer:** A non-volunteer agency employs properly trained individuals and operates an emergency response vehicle to or from the scene of an emergency and/or renders emergency medical treatment and seeks reimbursement for services offered.

**Mixed:** A mixed agency includes a core of compensated employees who are supported by true volunteer personnel.

2. **Average Value:** The average is the sum (total amount) of all of the numbers divided by the number of items for a specific measurement.
3. **Median Value:** The number in the middle of the distribution of numbers. It is the point such that half of the numbers fall below and half above.
4. **90% Fractal Value:** The value or measurement at which 90% of all events occur. This is typically used in time measurements to better standardize performance across systems.
5. **Lights and Sirens:** A lights and sirens, emergent response to or from an EMS event.
6. **No Lights and Sirens:** A normal traffic speed response (no lights and sirens) to or from an EMS event.

# National Report Sample

## Required Data Elements

- \* E02\_04: Type of Service Requested
- \* E02\_20: Response Mode to Scene
- \* E05\_04: Unit Notified by Dispatch Date/Time
- \* E05\_06: Unit Arrived on Scene Date/Time
- \* E05\_09: Unit Left Scene Date/Time
- \* E05\_10: Patient Arrived at Destination Date/Time

1. The Unit Notified Date (E05\_04) is used to select the records for the Date Range
2. Select only records with E02\_04 = 911 Response (Scene)
3. Select only records with E02\_20 = Lights and Sirens

## Formulas

Response Time = E05\_06 – E05\_04

Scene Time = E05\_09 – E05\_06

Transport Time = E05\_10 – E05\_09

## Exclusions/Limitations

For the purposes of charting, all elapsed patient care times that were negative, zero, or greater than 24 hours were removed.

# National Report Sample

EMS INCLUSION CRITERIA FOR STATES	North Carolina	New Hampshire	Minnesota	Nevada
(x = data are available in state EMS registry)				
<b>Any 911 Call</b>				
with an EMS dispatch		X	X	X
without an EMS dispatch				X
<b>Any 911 EMS Dispatch</b>				
with patient contact	X	X	X	X
without patient contact			X	X
<b>Any EMS Response</b>				
with patient contact	X	X	X	X
without patient contact			X	X
<b>Any EMS Patient Contact</b>				
with evaluation/care	X	X	X	X
without evaluation/care	X	X	X	X
with transport	X	X	X	X
without transport	X	X	X	X
<b>Any ALS Care</b>				
with transport	X	X	X	X
without transport	X	X	X	X
any EMS transport	X	X	X	X
<b>Any Medical Transports</b>				
consider non-emergent	X		X	X
scheduled transports	X		X	X
<b>Any Ground-Based Inter-Facility Transports</b>				
ground transports	X	X	X	X
Air (rotorwing) transports	X	X	X	X
any long-distance air medical transports (fixed wing)	X		X	X
<b>What other EMS- Related Events are Included in the State Data System?</b>				
no other events				
first responder reports	X	X		
rescue events	X	X		
standby requests	X	X	X	X
mutual aid	X	X	X	X
<b>How often is EMS Record Data Provided to the State?</b>				
	Daily	Daily	Daily	Daily
<b>Is the Data Provided to the State ever Changed Later?</b>				
	Yes	Yes	Yes	Yes
<b>In your Opinion, What Percent of the EMS Agencies in the State are Providing Data?</b>				
	100%	81%	100%	80%
<b>In your Opinion are the EMS Agencies which Provide Data to the State Providing 100% of their EMS Events?</b>				
	Yes	Yes	Yes	Yes
<b>If No, in your Opinion, what Percentage of all EMS Events meeting State Criteria are Actually Submitted to the State?</b>				

# Report Delivery

- Access to real-time data using web-based reports
- Ability to export reports to several formats including: XML, CSV, TIFF, Acrobat PDF and Excel.
- Ability to create windows security groups and subscriptions.
- Access to the [Report Manager](#), a website that organizes reports into folders and provides an easy way to navigate the reports.



# More National Report Samples

## Reports

- Elapsed Patient Care Times
  - By EMS Organization Type
  - By Urbanicity of EMS Service Area
  - By EMS Level of Service

## Characteristics

### States represented:

- Minnesota
- New Hampshire
- North Dakota

### Times represented:

- EMS Response Time
- EMS Scene Time
- EMS Transport Time

# EMS Reports for 2006

## Reports

- Incident Location Type
  - Top 5 categories
  - Other categories
- Complaint Reported By Dispatch
  - Top 10 categories
  - Other categories

## Characteristics

### States represented:

- Minnesota
- New Hampshire
- North Dakota

# Challenges

- Completeness of state data
- Identifying a core set of reports
- Precision of FIPS codes
- Be compliant with our latest version (NTHSA 2.2.1)

# Revision to NHTSA 3.0

- The revision process will begin Spring 2008
  - Lead by Greg Mears
    - Fix existing errors in the 2.2.1 dataset
    - Consider the additional of modules (e.g., workforce)
    - Facilitate national research (e.g., CDC triage scheme)
  - Process will be more electronic
    - Wiki, teleconferences, involve vendors
  - Product available in 2010



# Questions

